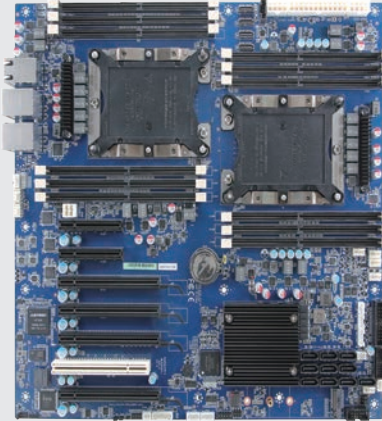


HPM-621DE

Dual 1st and 2nd Generation Intel® Xeon® Scalable Processors EATX Server Board with Intel® C621 Chipset and IPMI2.0. Processor supports up to 150W TDP



Features

- Dual Intel FCLGA3647 Sockets support 1st and 2nd Generation Intel® Xeon® Scalable Processors (Max. TDP at 150W each)
- Intel® C621 Chipset
- 12 x DDR4 2933/ 2666/ 2400/ 2133 MHz RDIMM/ LRDIMM Up to 1.5TB
- TPM 2.0 onboard
- IPMI 2.0 with AST 2500 BMC controller onboard
- 4 x Intel I210AT 1GbE controllers
- 10 x SATA III support RAID 0,1,5,10
- 2 x Internal RS232 ports
- 4 x USB 3.2 Gen1 ports at Edge I/O
- 2 x Internal USB 2.0 ports & 2 x internal USB 3.2 Gen1 ports
- 1 x M.2 M-Key PCIe 3.0 x4 NVMe SSD, 2242/2260/2280 form factor
- 12" x 13" (304.8mm x 330.2mm), PCB thickness is 2.0mm



1st/2nd Gen.
Intel® Xeon®
Scalable
Processor



12 x DDR
4 RDIMM/LRDIM
M 2933/2666/
2400/2133MHz



IPMI 2.0
supported



PCIe
Gen3
multiple
expansion

Specifications

System Information

Processor	Dual Intel FCLGA3647 Sockets support 1st and 2nd Generation Intel® Xeon® Scalable Processor (Max. TDP at 150W each)
Platform Controller Hub	Intel® C621 Chipset
System Memory	12 x DDR4 2933/ 2666/ 2400/ 2133 MHz RDIMM/ LRDIMM up to 1.5TB
Watchdog Timer	System reset event 0 ~ 6553 seconds
BIOS	AMI UEFI BIOS
H/W Status Monitor	CPU temperature Fan speed and voltage monitoring Fan speed control Case open detection
TPM	TPM 2.0 onboard
IPMI	IPMI 2.0 with AST 2500 BMC controller onboard

Rear I/O

USB	4 x USB 3.2 Gen1 ports
RJ-45	4 x RJ45 (LAN1 shares IPMI port)

Display

Graphic Chipset	AST 2500 BMC controller
Resolution	1 x VGA port VGA: 1920 x 1200 @ 60Hz 32bpp

Expansion

Expansion	4 x PCIe Gen3 x16 slots, 2 x PCIe Gen3 x8 slots, 1 x PCI 3.0 slot Slot 1, PCIe 3.0 x16 from CPU1 Slot 2, PCI 3.0 Slot 3, PCIe 3.0 x16 from CPU1 Slot 4, PCIe 3.0 x16 from CPU2 Slot 5, PCIe 3.0 x16 from CPU2 Slot 6, PCIe 3.0 x8 from CPU1 Slot 7, PCIe 3.0 x8 from CPU1 (Slot 7 is the slot closest to CPU)
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Storage

M.2	1 x M.2 M-Key PCIe 3.0 x4 NVMe SSD, 2242/2260/2280 form factor
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I/O

USB	2 x Internal USB 2.0 ports 2 x Internal USB 3.2 Gen1 ports
SATA	10 x SATA III Support RAID 0,1,5,10
Serial	2 x Internal RS232 ports
VGA	1 x Internal VGA port
Other	4 x OCuLink ports from CPU 2 for U.2 SSD
CMOS Battery	1 x Horizontal Socket Type CMOS Battery Holder with CR2450

Ethernet

LAN Chipset	4 x Intel I210AT 1GbE controllers
LAN Port	4 x RJ45 (LAN1 shares IPMI port)

Mechanical & Environmental

Operating Temp.	0 ~ 60°C (32 ~ 140°F)
Storage Temp.	-40 ~ 85°C
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Weight	1.8KG
Power Connector	1 x Std. 24 Pin ATX connector 2 x 8 Pin SSI 12V connectors
Dimension (L x W)	12" x 13" (304.8mm x 330.2mm), PCB thickness is 2.0mm

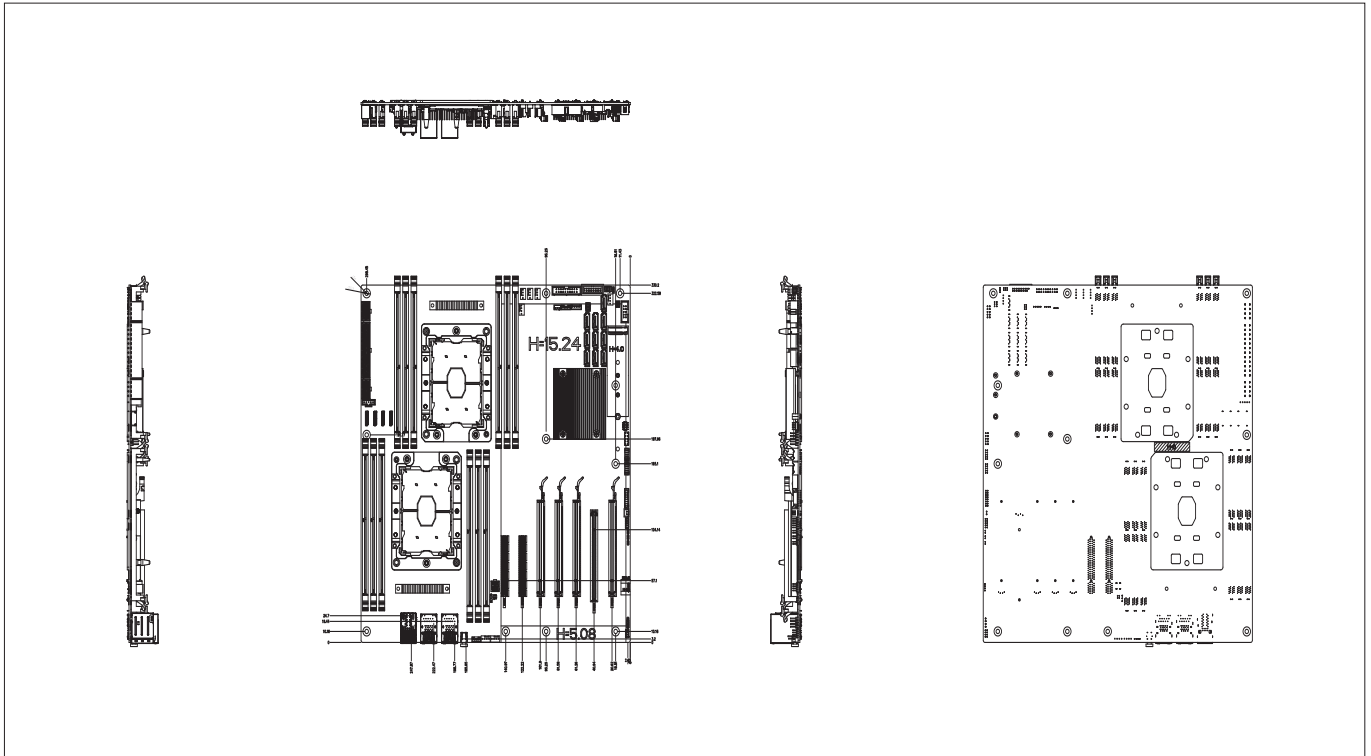
Software Support

OS	Windows 10 IoT Enterprise Windows Server 2016 Windows Server 2019 Ubuntu® 18.04 LTS or Later
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Mechanical Drawing



Ordering Information

P/N	CPU	Chipset	Memory	PCIe Slot	10 GbE	2.5 GbE	1 GbE	M.2	USB 3.2 Gen2	USB 3.2 Gen1	USB 2.0	TPM 2.0
HPM-621DEA-A1R	2	C621	12	7	-	-	4	1	-	6	2	1

Packing List

Item	P/N	Quantity
HPM-621DE motherboard	HPM-621DEA-A1R	1
HPM-621DE I/O shield	E195BKHP21DE00R	1

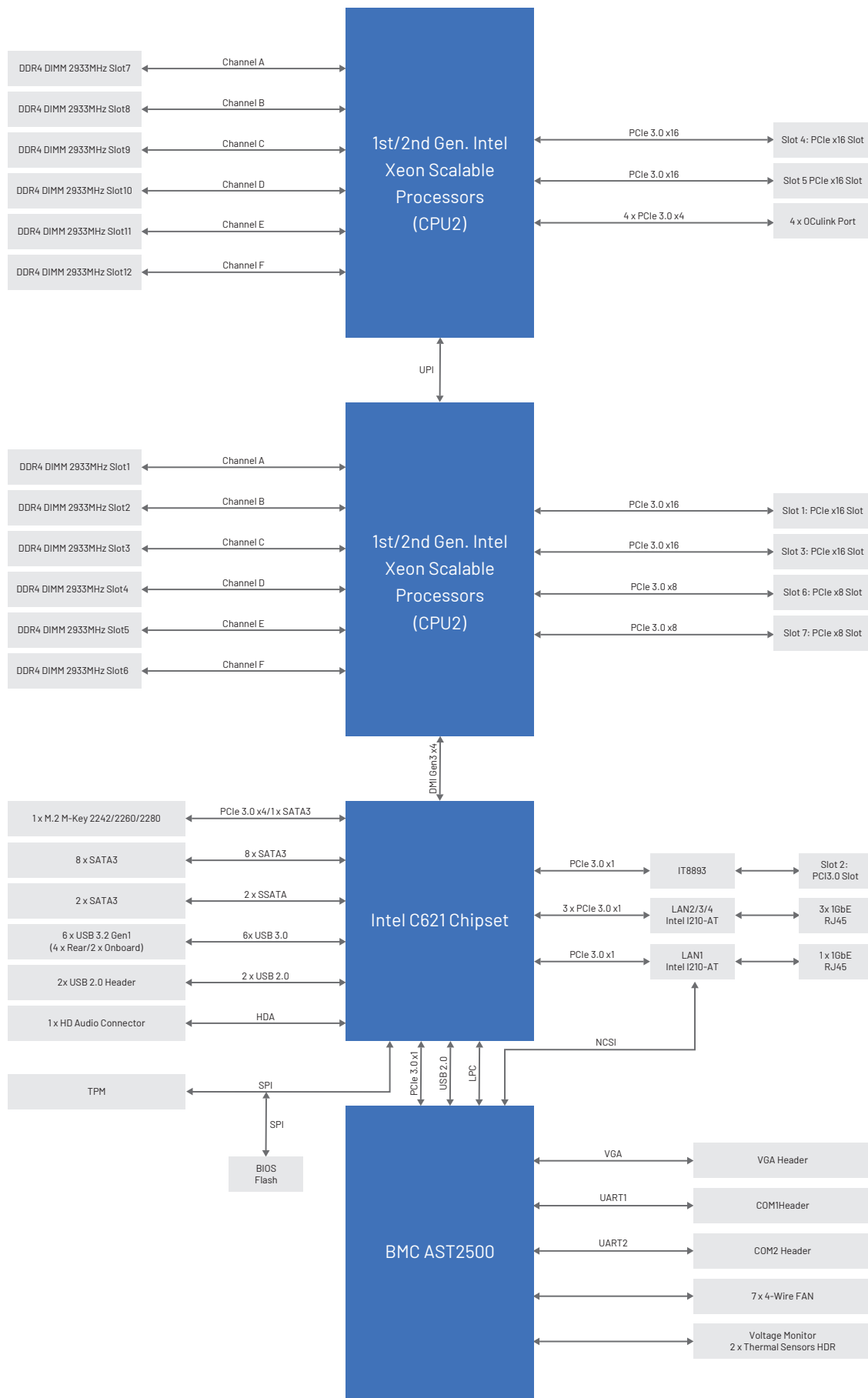
Optional Items

Item	P/N
CPU Cooler for LGA3647 4U	BCC-FAN-364-01R

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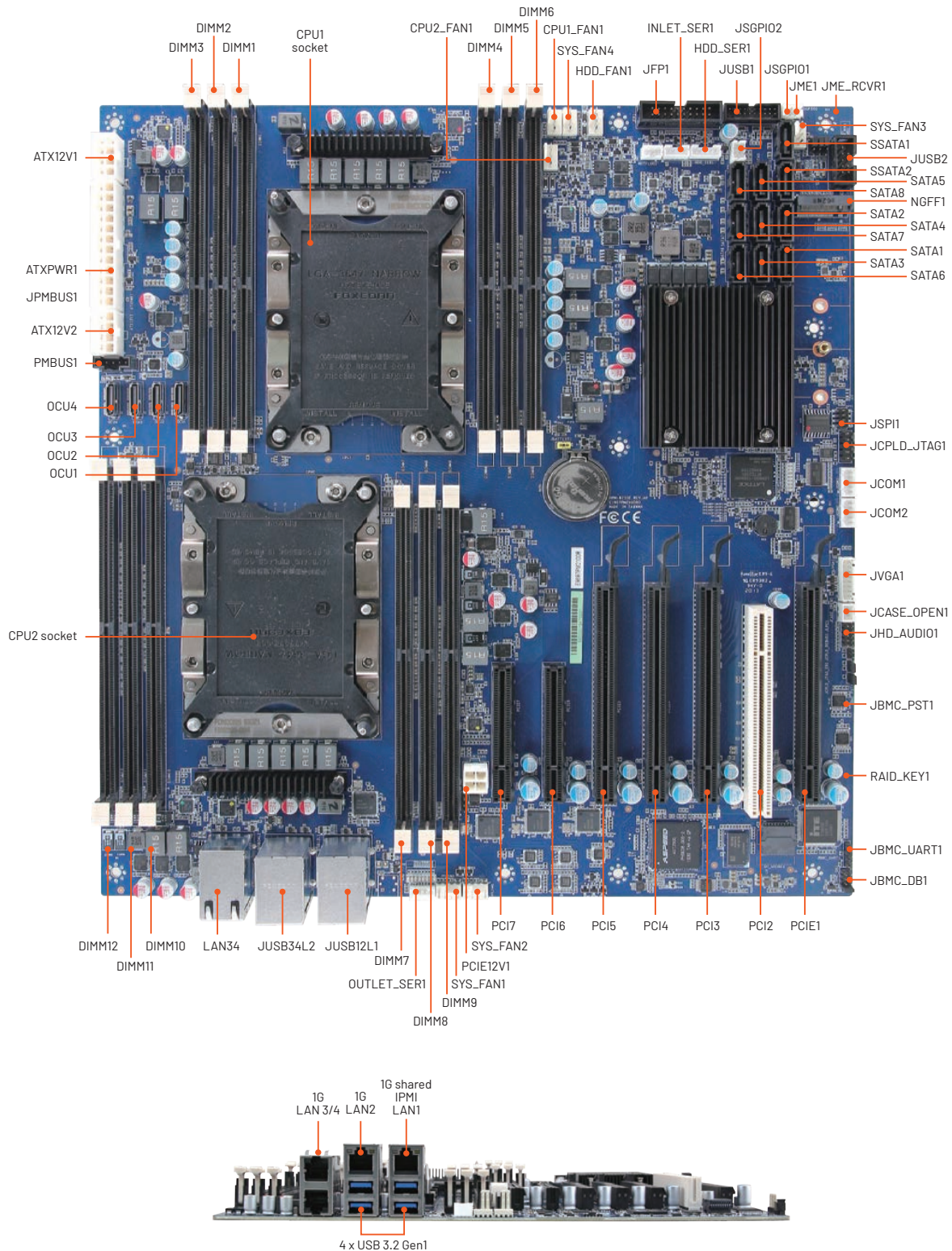
Block Diagram



HPM-621DE

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I/O Overview



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CPU Support List (HPC Only)

SKU	Launch Date	# of Cores	# of Threads	Processor Base Frequency	Max Turbo Frequency	TDP (W)
Intel® Xeon® Bronze 3106	Q3'17	8	8	1.70 GHz	NA	85
Intel® Xeon® Silver 4109T	Q3'17	8	16	2.00 GHz	3.00 GHz	70
Intel® Xeon® Silver 4110	Q3'17	8	16	2.10 GHz	3.00 GHz	85
Intel® Xeon® Silver 4114T	Q3'17	10	20	2.20 GHz	3.00 GHz	85
Intel® Xeon® Silver 4116	Q3'17	12	24	2.10 GHz	3.00 GHz	85
Intel® Xeon® Silver 4116T	Q3'17	12	24	2.10 GHz	3.00 GHz	85
Intel® Xeon® Gold 5118	Q3'17	12	24	2.30 GHz	3.20 GHz	105
Intel® Xeon® Gold 5119T	Q3'17	14	28	1.90 GHz	3.20 GHz	85
Intel® Xeon® Gold 5120T	Q3'17	14	28	2.20 GHz	3.20 GHz	105
Intel® Xeon® Gold 6126T	Q3'17	12	24	2.60 GHz	3.70 GHz	125
Intel® Xeon® Gold 6126	Q3'17	12	24	2.60 GHz	3.70 GHz	125
Intel® Xeon® Gold 6130T	Q3'17	16	32	2.10 GHz	3.70 GHz	125
Intel® Xeon® Gold 6130	Q3'17	16	32	2.10 GHz	3.70 GHz	125
Intel® Xeon® Gold 6138	Q3'17	20	40	2.00 GHz	3.70 GHz	125
Intel® Xeon® Silver 4209T	Q2'19	8	16	2.20 GHz	3.20 GHz	70
Intel® Xeon® Silver 4210	Q2'19	10	20	2.20 GHz	3.20 GHz	85
Intel® Xeon® Silver 4215	Q2'19	8	16	2.50 GHz	3.50 GHz	85
Intel® Xeon® Silver 4214	Q2'19	12	24	2.20 GHz	3.20 GHz	85
Intel® Xeon® Silver 4216	Q2'19	16	32	2.10 GHz	3.20 GHz	100
Intel® Xeon® Gold 5215	Q2'19	10	20	2.50 GHz	3.40 GHz	85
Intel® Xeon® Gold 5218T	Q2'19	16	32	2.10 GHz	3.80 GHz	105
Intel® Xeon® Gold 6226	Q2'19	12	24	2.70 GHz	3.70 GHz	125
Intel® Xeon® Gold 6230	Q2'19	20	40	2.10 GHz	3.90 GHz	125
Intel® Xeon® Gold 6238T	Q2'19	22	44	1.90 GHz	3.70 GHz	125